## REMARKS

Claims 1-42 are pending. Applicant added new claims 43-46, by which Claims 1-46 are now pending. Applicant has not added new matter with this Response, and support for Claims 1-46 can be found in the original specification and claims as filed.

Applicant would like to thank the Examiner for the telephone interview on January 28, 2004, wherein various proposed amendments to the claims were discussed. Although no formal agreement was reached regarding allowability, Applicant submits the amended claims, as shown above, for the Examiner's approval, which Applicant earnestly believes are in compliance with the Examiner's comments during said interview.

In the interest of clarity, the Item Numbers below correspond to the Examiner's Item Numbers in the Office Action.

**1.** In conjunction with Claims 35-37, the Examiner originally maintained her objection to the drawings under 37 CFR 1.83(a), for which Applicant traversed and requested withdrawal. Following Applicant's amendment to Claim 36 (i.e., amending "cup" to "product"), however, Applicant believes the Examiner agreed to withdraw the objection, for which Applicant is grateful.

**2-3.** In conjunction with Claim 10, the Examiner originally maintained her rejection under 35 U.S.C. § 112, second paragraph, regarding indefiniteness for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention, for which Applicant traversed and requested withdrawal. Following Applicant's amendment to Claim 10 (i.e., amending "C" to its "2.0" numerical equivalent under ANSI Standard X3.182-1990), however, Applicant believes the Examiner agreed to withdraw the rejection, for which Applicant is grateful.

If necessary for further clarification, Applicant respectfully directs the Examiner to **U.S. Pat. No. 5,972,147** at *Col. 3, lines 53-55* ("a thermal transfer printing grade, according to ANSI Standard X3.182-1990, of at least 'C'") and *Col. 12, lines 21-34* ("Print Quality is measured according to ANSI X3.182-1990, which is hereby incorporated by reference. The ANSI X3.182-1990 test measures the print quality of a bar code for purposes of code readability. The test evaluates the print quality of a bar code symbol for contrast, modulation, defects, and decodability and assigns a grade of A, B, C, D or F for each category. An 'A' grade is the highest grade and represents a highly readable code that can be decoded by the scanning unit

with minimal mathematical computation. An 'F' grade is the lowest grade for a bar code to which a scanner generates a response, and represents a bar code that requires extensive mathematical computation by the scanning unit to interpret. The overall grade of a sample is the lowest grade received in any of the above categories."), *as well as* **U.S. Pat. No. 6,010,970** at *Col. 3, lines 48-52* ("a bar code readability grade, according to ANSI Standard X3.182-1990, of at least 2.0 (Grade C), and more preferably of at least 3.0 (Grade B), using Code 39 symbology with a narrow band width of 0.0096 inch (0.0244 cm)"); *Col. 10, lines 59-64* ("Print Quality is measured according to ANSI X3.182-1990, which is hereby incorporated by reference. The test measures the print quality of a bar code for purposes of code readability. The test evaluates the print quality of a bar code symbol for contrast, modulation, defects, and decodability and assigns a grade of A, B, C, D or F (fail) for each category"); *Claim 1* ("a bar code readability, according to ANSI Standard X3.182-1990, of at least 2.0 on the first surface of the sheet"); *and Claim 8* ("[t]he sheet of claim 1 wherein said sheet has a bar code readability, according to ANSI Standard X3.182-1990, of at least 3.0").

**4-15.** Under 35 U.S.C. § 103(a), the Examiner rejected Claims 1-3, 22-23, and 42 as being unpatentable over U.S. Pat. No. 4,869,946 to Clay ("Clay"); Claims 4-6, 17, and 38-40 as being unpatentable over Clay as applied to Claim 1, and further in view of U.S. Pat. No. 6,073,854 to Bravenec et al. ("Bravenec"); Claims 7-9 and 11 as being unpatentable over Clay as applied to Claim 1, and further in view of U.S. Pat. No. 6,386,448 to Addy ("Addy"); Claims 10 and 16 as being unpatentable over Clay as modified by Addy applied to Claim 7, and further in view of U.S. Pat. No. 6,010,970 to McGinty ("McGinty"); Claims 12 and 15 as being unpatentable over Clay in view of U.S. Pat. App. No. 2002/0038917 to McKee ("McKee"); Claim 13 as being unpatentable over Clay in view of U.S. Pat. No. 4,935,335 to Fotland ("Fotland"); Claim 14 as being unpatentable over Clay as modified by Fotland as applied to Claim 13, and further in view of U.S. Pat. No. 5,330,799 to Sandor ("Sandor"); Claims 25-27 and 29 as being unpatentable over Clay in view of U.S. Pat. No. 6,329,987 to Gottfried ("Gottfried"); Claims 31-33 and 41 as being unpatentable over Clay as modified by Bravenec as applied to Claim 5, and further in view of Addy; Claims 18-21, 24, 28, and 30 as being unpatentable over Clay as applied to Claim 1, further in view of WIPO 00/09319 to Guest ("Guest"); and Claims 34-37 as being unpatentable over Clay in view of Guest. Respectfully,

Applicant notes that each of these objections is based on **Clay**, which is distinguishable. Thus, Applicant traverses and requests withdrawal.

Lenticular lens technology, as well-known, allows different images to be viewed at different viewing angles. This can be problematic when viewing a bar code symbol through a lenticular lens, for example, as the bar code symbol may be viewed only at certain viewing angles. Clay purports to solve this problem by laying the bar code symbol as a continuous image on a substrate, whereby, it is claimed, it can be seen at all different viewing angles. *See, e.g., Col. 4, lines 2-5 and FIGS. 4-5.*

Applicant fully acknowledges the teachings—and limitations—of Clay, which Applicant depicted in Applicant's FIGS. 6A, 6B, 7A, and 7B. However, Applicant respectfully asserts that when reading a Clay bar code, **significant distortion results.** Laying the bar code as a continuous image on the substrate does **not** solve this problem—to wit, continuously viewing the bar code does not eliminate distortion. This distortion is caused by alignment of the lenticules of the lenticular lens with the bars of the bar code symbol. For example, as Applicant noted with respect to a Clay bar code:

> Figs. 6A-6B illustrate schematically one of the problems that can occur when the bars 36 of the bar code symbol 18 are parallel to, or aligned with, lenticules 34 of lenticular lens 32. Figs. 6A and 6B illustrate the same lenticular bar code image...**It is important to note that bar 48 of Fig. 6B appears thinner when compared to bar 48 of Fig. 6A. In addition, in space 50 of Fig. 6B, bars 52 from Fig. 6A now appear to have disappeared.** Such are the types of effects that can occur when the lenticules of the lenticular lens are in a parallel orientation with respect to the bars of the bar code symbol. In this case, the appropriate item number 44 may be **misread by a bar code reader** because of the absence of particular bars, or the addition or subtraction of width or spaces to existing bars. Given the high level of accuracy desired by those who scan bar codes, **it is imperative that these effects be minimized.**

*Paragraph 49, lines 1-14* (multiple emphasis added). Similarly, FIGS. 7A-7B also show that similar distortive effects occur even when using a high definition lenticular lens. *See, e.g., Paragraph 50, lines 1-8.* Applicant believes that the Examiner and Applicant agreed on these points, for which Applicant is grateful.

Moreover, Clay remains distinguishable in so far as:

> Clay fails to tech [sic] that the bars of the bar code symbol are skewed with respect to the lenticules of the lenticular lens and are not aligned with the lenticules of the lenticular lens. Clay also fails to teach a bar code offset angle between the bars of the bar code symbol and the lenticules of the lenticular lens.

...

> ...Clay fails to teach that the bars of the bar code symbol are perpendicular to the lenticules of the lenticular lens. Clay also fails to teach that at least one of the plurality of lenticules overlays more than one bar of the bar code symbol. Clay also fails to teach that the lenticules are not parallel to the spaced apart elements of the bar code and the lenticules are normal to the spaced apart elements of the bar code.

*Detailed Action, Page 4, lines 3-18. See also, e.g., Applicant's FIGS. 8-10* and the corresponding description in the Specification—to wit, *Paragraph 51, lines 2-4* ("[T]he bars 20 are not parallel to, and form a lenticular angle alpha with, the lenticules of the lenticular lens 68. Alpha, for this example, is approximately 30 degrees"); *Paragraph 52, lines 3-4* ("[L]enticular bar code angle alpha is formed between the bars 73 of bar code symbol 18 and the lenticules 74 of the lenticular lens 76"); *and Paragraph 54, lines 2-16* ("[A] lenticular bar code angle is created, represented by the symbol beta...[A] lenticular bar code angle of 90 degrees is shown and preferred. The lenticular bar code angle, as shown, is measured from the bars of the bar code to the axial direction of the lenticules of the lenticular lens"). Thus, Applicant respectfully asserts that Clay does not, either individually or in various combinations with the other cited references, anticipate Applicant's claimed invention.

Notwithstanding the foregoing, however, Applicant and the Examiner discussed clarifying the lenticular bar code angle with respect to the lenticules of the lenticular lens and the bars of the bar code symbol. Accordingly, Applicant amended Claims 1 and 31-42 to render explicit that which was implicit, namely, that the lenticules of the lenticular lens are oriented along an axial direction and that the lenticular lens and image are in overlay relationship with one another such that a line parallel to the axial direction and at least one of the bars diverge from a common point to define the lenticular bar code angle.

As such, and after carefully reviewing all of the cited references, Applicant respectfully asserts that all of the claim limitations of Applicant's claimed invention are not taught or suggested by any of the following: Clay; Clay as applied to Claim 1, and further in view of Bravenec; Clay as applied to Claim 1, and further in view of Addy; Clay as modified by Addy applied to Claim 7, and further in view of McGinty; Clay in view of McKee; Clay in view of Fotland; Clay as modified by Fotland as applied to Claim 13, and further in view of Sandor; Clay in view of Gottfried; Clay as modified by Bravenec as applied to Claim 5, and further in view of

Addy; Clay as applied to Claim 1, further in view of Guest; and Clay in view of Guest—as per respective Item Numbers 4-15 of the Office Action.

Thus, earnestly believing that Claims 1-46 recite patentable subject matter, and that Clay has been distinguished, both individually and in various combinations with the other cited references in so far as they do not teach or suggest, inter alia, Applicant's claimed lenticular bar code angle, Applicant accordingly requests reconsideration and allowance of the same.

Applicant also respectfully acknowledges the other references to which the Examiner cited in Item Numbers 4-15, but Applicant respectfully requests and reserves the right to respond more specifically thereto, if necessary, following the Examiner's consideration of the foregoing.

In addition, Applicant also notes that Applicant made several other minor (i.e., non-substantive) changes to several of the claims to further clarify various aspects of the inventive concept.

**16.** Finally, Applicant also respectfully acknowledges the Examiner's "Response to Arguments," including the Examiner's arguments made therein and discussion of, inter alia, the combination of Clay with Bravenec, but Applicant respectfully requests and reserves the right to respond more specifically thereto, if necessary, following the Examiner's consideration of the foregoing.

## CONCLUSION

Applicant claims a lenticular bar code image in which the lenticules of the lenticular lens are oriented along an axial direction and the lenticular lens and image are in overlay relationship with one another such that a line parallel to the axial direction and at least one of the bars diverge from a common point to define a lenticular bar code angle. Nothing in any of the cited references, either individually or in various combinations thereof, teaches or suggests Applicant's claimed invention.

Applicant believes this Response overcomes all of the Examiner's objections and rejections. Thus, Applicant believes the Examiner cannot properly establish or maintain any objections or rejections to the Specification or claims. Accordingly, Applicant respectfully requests that the Examiner withdraw all objections and rejections.

Applicant believes this Response should allow the Examiner to allow the above-referenced patent application to issue as a U.S. patent without further amendments to the Specification or claims. Thus, Applicant respectfully submits that all pending claims are in condition for allowance, which Applicant requests, as well as notification to that effect. However, if any questions should arise, Applicant hereby encourages the Examiner to telephone the undersigned attorney.

## EXTENSION OF TIME

The proceedings herein are for a patent application, and the provisions of 37 CFR 1.136 apply. Applicant believes this Response requires a three (3) month extension of time, for which Applicant hereby petitions, and requests that any and all applicable charges be charged to Applicant's Deposit Account No. 232053. In addition, Applicant also makes this petition conditional in case Applicant inadvertently overlooked the need to petition for a different extension of time, in which case Applicant again requests that any and all applicable charges be charged to Applicant's Deposit Account No. 232053. Applicant intends this authorization to be carried throughout the pendency of this Application, in full accordance with 37 CFR 1.136.

Respectfully submitted,

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Dated: 01/30/04

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